

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 107754	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/AU02/01754	International filing date (<i>day/month/year</i>) 30 December 2002	(Earliest) Priority Date (<i>day/month/year</i>) 27 December 2001
Applicant ALZHYME PTY LTD et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

☒ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title, ☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract, ☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure

☐ because this figure better characterizes the invention

☐ None of the figures

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos : 26, (and claims 28-45 in part)
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 26 (and appended claims in part) are indeterminate and unclear in scope. Claims to a peptide which is identified by the method of the invention do not define any particular features of the peptides themselves. Any peptides which are identified by the method of the invention may well be known (as found in claim 27).
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU02/01754

A. CLASSIFICATION OF SUBJECT MATTERInt. Cl. ⁷: G01N 33/573, 33/53; 33/566, 33/68; A61K 38/08, 38/10; A61P 25/28; C12Q 1/02; C07K 7/06, 7/08.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G01N 33/53, 33/573, 33/68; C07K 7/06, 7/08; A61K 38/08, 38/10; A61P 25/28; C12Q 1/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPAT; JAPIO; MEDLINE; CAPlus ('superoxide dismutase'; SOD; copper; zinc; amyloid; 'beta amyloid'; prion; amylin; alzheimer's; diabetes, CJD, BSE, TSE, peptid*)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 00/66181 A1 (THE GENERAL HOSPITAL CORPORATION) 9 November 2000 Whole document.	1-25, 27-46
A	WO 01/07442 A1 (BIOMOLECULAR RESEARCH INSTITUTE LTD and THE UNIVERSITY OF MELBOURNE) 1 February 2001. Whole document.	1-25, 27-46
P,A	US 6,365,414 B1 (Tanzi et al) 2 April 2002 Whole document.	1-25, 27-46

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

- * Special categories of cited documents:
- | | |
|---|--|
| "A" document defining the general state of the art which is not considered to be of particular relevance | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "E" earlier application or patent but published on or after the international filing date | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "O" document referring to an oral disclosure, use, exhibition or other means | "&" document member of the same patent family |
| "P" document published prior to the international filing date but later than the priority date claimed | |

Date of the actual completion of the international search
28 March 2003Date of mailing of the international search report
- 4 APR 2003

Name and mailing address of the ISA/AU

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 95/08999 A (CITY OF HOPE) 6 April 1995 Whole document.	1-25, 27-46
A	US 6,331,440 B1 (Nordstedt et al) 18 December 2001 Whole document.	1-25, 27-46
A	Jobling, M.F. et al., (June 2001), <i>Biochemistry</i> , vol. 40, pp. 8073-8084. "Copper and zinc binding modulates the aggregation and neurotoxic properties of the Prion peptide PrP106-126". Whole document.	1-25, 27-46
A	Atwood, C.S. et al., (2000), <i>J. Neurochem</i> , vol. 75(3), pp. 1219-33. "Characterization of copper interactions with Alzheimer amyloid β peptides: Identification of an attomolar-affinity copper binding site on amyloid β 1-42". Whole document.	1-25, 27-46
P,A	Bush, A.I. (2002), <i>Neurobiology of Aging</i> , vol. 23, pp. 1031-1038. "Metal complexing agents as therapies for Alzheimer's disease". Whole document.	1-25, 27-46
X	GenPept Accession No: NP203724 (6 September 2001) NADH dehydrogenase subunit 5 (<i>Pantodon buchholzi</i>). Inoue, J.G. et al. (BLAST: 100% identity over 6 amino acids).	27 (SEQ ID (i))
X	GenPept Accession No: H96550 (23 March 2001) hypothetical protein F11M15.16 (<i>Arabidopsis thaliana</i>). Theologis, A. et al. (BLAST: 100% identity over 6 amino acids).	27 (SEQ ID (i))
X	GenPept Accession No: NP199293 (13 August 2001) helicase-like protein (<i>Arabidopsis thaliana</i>). Tabata, S. et al. (BLAST: 100% identity over 6 amino acids).	27 (SEQ ID (ii))

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU02/01754

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member	
WO	200066181	AU	200046849
WO	200107442	AU	200059548
US	6365414	AU	81223/94
		US	2002115223
WO	9508999	EP	670731
US	6331440	AU	10728/97
		WO	9721728
		EP	1196198
		EP	1232159
		CA	2205085
		WO	9607096
		US	5470951
		EP	866805
		US	2002094957
END OF ANNEX			